

History of the Trumpet

Interaction of Music, Culture, and Technology

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Introduction

I took my first lesson on the cornet at the age of eight. I have played continuously since then and, at the time of this writing, I am now in my third year of university, studying the trumpet. Despite these years of musical training, it has lacked a good overview of the history of the trumpet, which is a shame because it is one of the most elaborate and colorful histories of any instrument. This project for my Junior Honors Seminar has involved a great deal of reward, and discovery. In my research I familiarized myself with some of the great recordings of a the past, such as the first Hot Five recordings led by the jazz and trumpet king, Louis Armstrong;¹ cylinder recordings of the cornet legend from the turn of the 20th century, Herbert L. Clarke;² pictures and a recording of the first physical example of a trumpet;³ facsimiles of “The Trumpet Shall Sound” from Handel’s *Messiah*,⁴ and many more treasures.

This paper explores the earliest trumpets and their connotations in many different cultures. From there the history of the trumpet up to its current form unravels. The development of the trumpet has been an interaction of music, culture, and technology, but this interaction is not always simple or straightforward. Music, culture and technology had various influences through out the trumpet’s history, sometimes working in

¹ L. Hardin, “My Heart,” and L. Armstrong, “Gut Bucket Blues,” (Chicago: 12 November 1925); from *Louis Armstrong: The Complete Hot Five and Hot Seven Recordings* (New York: Columbia Records, 2000) [Compact Disc], disc 1, tracks 1-2.

² Herbert L. Clarke, “Bride of the waves,” (1913); from *Cylinder Preservation and Digitization Project*, <http://cylinders.library.ucsb.edu/mp3s/4000/4979/cusb-cyl14979d.mp3> (Accessed: 1 December 2005).

³ Recording of the sound of Tutankhamun’s silver trumpet was made in 1939 in the Egyptian Museum in Cairo for BBC radio, <http://www.ccer.theo.uu.nl/ccer/trumpet.html> (Accessed: 19 August 2005).

⁴ Friedrich Chrysander, ed., *Das Autograph des Oratoriums “Messias”* (Hamburg: Gedruet bei Strumper & Co, 1892; reprinted: Frederick Freedman, ed., *Handel’s Messiah: The Original Manuscripts in Facsimile* [New York: Da Capo Press, 1969]), 218-223.

cooperation, other times in competition. There is a tendency for these aspects to balance (or counter balance) each other, but ultimately they produced a virtuoso instrument: the modern trumpet.

What is a trumpet?

The simple question, “What is a trumpet?” has stimulated significant debate and lacks scholarly consensus. Exemplifying this lack of consensus is the inconsistency between two versions of the Encyclopædia Britannica: the standard edition and the student edition. The standard Encyclopædia Britannica has a very broad definition of a trumpet as “any lip-vibrated instrument, whether of horn, conch, reed, or wood, with a horn or gourd bell, as well as ... the modern brass instrument.”⁵ On the other hand, the student edition adopts a much narrower definition by avoiding animal horns or conch shells, only briefly mentioning, “tubes made of wood, bamboo, or gourd. ...[and] trumpet-like instruments ... of silver,” and defining the modern trumpet as “a metal instrument with a wide flared bell and short cylindrical bore.”⁶

One of the questions is how to differentiate a horn from a trumpet. For a long time musicologists based this on the shape of the bore. A trumpet’s bore would be about two thirds cylindrical and one third conical, but the horn would be one third cylindrical and two thirds conical.⁷ Musicologist and trumpet virtuoso, Edward Tarr, states that this

⁵ “Trumpet,” *Encyclopædia Britannica* from Encyclopædia Britannica Online, <http://search.eb.com/eb/article-9073554> (Accessed 12 December 2005).

⁶ “Trumpet,” *Britannica Student Encyclopedia* from Encyclopædia Britannica Online, <http://search.eb.com/ebi/article-9390924> (Accessed 12 December 2005).

⁷ Edward Tarr, *The Trumpet* (Portland, Oregon: Amadus Press, 1988), 7.

definition not longer applies, as “the bore of both the B-flat and the piccolo B-flat trumpet are up to 80 percent conical.”⁸

Many definitions of a trumpet only apply to a specific time frame. This type of definition has its uses. If a manager of a dance band hired four trumpets and one of them showed up with a Roman tuba (which by most scholarly definitions is a trumpet) the manager might not be too happy.

In the context of writing a history of the trumpet, I find the strict modern definitions a little rigid and almost inappropriate when applied to ancient instruments. I think there is room for flexibility. Take the conch shell, for example. The conical bore and the use of the hand in the bell to adjust the pitch and timbre would classify the conch shell as a horn. Alternatively, the cultural associations, its important role in religion and war, and possibly its range would suggest trumpet. On this topic trumpeter, Emile Meuffels, affirms:

...In this early stage of history, you cannot make a difference between horn and trumpet. People were using whatever they had, whether it was a conch shell, an animal horn (both conical) or a hollow tree or even a human thigh-bone (both cylindrical). I think these are all brasswind instruments (or lip-vibrated instruments, because there is no brass yet) in general, but as a trumpet-player, I would call them all trumpets.⁹

⁸ Ibid.

⁹ Emile Meuffels, personal correspondence, archived at “[TPIN] Conch shells,” <http://tpin.okcu.edu/pipermail/tpin/2005-December/027479.html> (12 December 2005).

Conch

As mentioned in the previous section, there is some debate over whether a conch shell counts as a trumpet. Edward Tarr, asserts, “It would be incorrect to speak of conch-shell trumpets.” I include them in my discussion because of the similarities in its cultural significance and that of later trumpets. The resonant sound of the conch has inspired both terror and religious symbolism.

Hinduism

In Hinduism, the conch is blown to declare war, or to end it, and played annually for the festival of Nav Ratri (“Nine Nights”).¹⁰ It is used on more regular occasions in worship as an article of prayer.¹¹



Figure 1 The God of Preservation, Vishnu, is always portrayed holding a conch representing creativity. Vishnu’s conch produces the primeval sound of creation.

Buddhism

In nature one finds two kinds of conch: those that turn left and those that turn right. The right turning conch shell is especially sacred in Buddhism, because of: (1) the rarity of right turning shell, (2) the clockwise spiral mimics the movement of the celestial bodies (3) the use of clockwise spirals in

¹⁰ Prashant Hosur, personal correspondence (5 December 2005).

¹¹ “Conch,” *Wikipedia*, <http://en.wikipedia.org/wiki/Conch> (Accessed: 5 December 2005), Religious symbolism.

depictions of Buddha.¹² The three spiral, conch-like rings around Buddha's neck are said to represent, "Buddha's deep and resonant voice, through which he introduced his followers to the path of dharma."¹³ Even his hair curls in a clockwise direction!¹⁴

Ancient Maya

In the Mayan culture, the conch is associated with the Underworld and played during rituals to recall ancestors or supernaturals.¹⁵ This association with the dead, is not unlike the playing of taps at funerals today.

Ancient Greece

The Greek god, Triton, "Messenger of the Deep" is the son of Poseidon, god of the sea, and Amphitrite. He is usually represented as a merman and blowing a conch.¹⁶

Triton's special attribute was a twisted conch shell, on which he blew like a trumpet to calm or raise the waves. Its sound was so terrible, that when loudly blown, it put the giants to flight, who imagined it to be the roar of a mighty wild beast (Hyginus, Poet. astronom. ii. 23).¹⁷

Today, the conch is still associated with mermaids and mermen.

¹² "The Eight Auspicious Symbols of Buddhism – A Study in Spiritual Evolution," Exotic India, <http://www.exoticindiaart.com/article/symbols> (October 2005; Accessed: 5 December 2005), The Conch Shell.

¹³ Ibid., Introduction.

¹⁴ Ibid., The Conch Shell.

¹⁵ "Conch Shell," *9ways*, <http://9waysmysteryschool.tripod.com/sacredsoundtools/id2.html> (Accessed: 4 December 2005).

¹⁶ "Triton (mythology)," *Wikipedia*, http://en.wikipedia.org/wiki/Triton_%28mythology%29 (Accessed: 30 November 2005).

¹⁷ Ibid.

Early trumpets

The conch shell “needs almost no work to make it into a trumpet,” writes Meuffels, “except eating the crustacean, which is a very natural human behavior.”¹⁸ Trumpets made of wood or animal horn had to be hollowed out, although this might also occur naturally, i.e. termites. The first handmade or metal trumpets represent a technological sophistication. The instrument is no longer harvested from nature, but intentionally created. It might seem logically for musical sophistication to follow, but this is not the case. The sound of these instruments was described as horrible, terrible, or like the braying of an ass.¹⁹ The primary purpose of these instruments was for signaling or to scare an enemy. Musical use, was at most, secondary.²⁰

Egyptians

The oldest trumpet in this category was discovered in the tomb of King Tutankhamun in 1922, when both a silver and a copper trumpet were found. The silver trumpet shattered when it was played experimentally 1939, it was restored immediately and survived a broadcast that was aired on the BBC.²¹

The bandsman who made the recording in 1939 used a modern mouthpiece because he could not get a sound out of it. The instrument was played again later by

¹⁸ Meuffels.

¹⁹ Tarr, 20, 26.

²⁰ Michael D. Coogan, ed., *The New Oxford Annotated Bible*, 3 ed. (New York: Oxford University Press, 2001), Hebrew Bible 200.

²¹ Nigel Strudwick, <http://www.ccer.theo.uu.nl/ccer/trumpet.exe> (Accessed: 19 August 2005).

Philip Jones who describes it as horrible, “The length of the tube and the bore of the tube are so completely out of one with the other that there is no way you can do anything than make a horrible noise on the instrument...”²²

Nigel Strudwick writes, “The two trumpets from the tomb of Tutankhamun are not the only ones surviving from Ancient Egypt. At least one other trumpet of unknown provenance is conserved in the Louvre Museum in Paris, France.”²³

Ancient Greece

The Greek trumpet, the salpinx, was a military instrument. Trumpet players also competed at the Olympic games. Fortunately, a salpinx has survived; that dates from the fifth century B.C.E.

It consists of 13 cylindrical parts made of ivory, which are held together by means of broad bronze rings. The delicate bell is made of cast bronze, as is the mouthpiece, which is a mere widening of the tubing.²⁴

The instrument is evidence of intricate handiwork, but “Aeschylus described the sound of the salpinx as ‘screaming’.”²⁵

²² Donna McDonald, *The Odyssey of the Philip Jones Brass Ensemble* (Bulle, Switzerland: Editions BIM; 1986), 60; quoted in Ole J. Utnes, <http://tpin.okcu.edu/pipermail/tpin/2005-November/026538.html> (18 November 2005).

²³ Strudwick.

²⁴ *Ibid.*, 24.

²⁵ *Ibid.*

Israelites

Numerous references to the trumpet are found in the Hebrew Bible and are particularly influential on the Western understanding and treatment of the trumpet. In the Israelite culture, trumpets are associated with the voice of God and angels, with stories of victory in battle, and used in praise of God. Other than times of war, trumpet playing was exclusive to the Priests.

The first reference to trumpets occurs at Mount Sinai (Exodus 19-20). When Moses receives the Ten Commandments on Mount Sinai a terrifying blast of the trumpet announces God's presence.

On the morning of the third day there was thunder and lightning, as well as a thick cloud on the mountain, and a blast of a trumpet so loud that all the people who were in the camp trembled. Moses brought the people out of the camp to meet God. ... As the blast of the trumpet grew louder and louder, Moses would speak and God would answer him in thunder. ... When all the people witnessed the thunder and lightning, the sound of the trumpet, and the mountain smoking, they were afraid and trembled and stood at a distance.²⁶

The sound of the trumpet in this passage parallels that of the conch shell in Greek Mythology (see "Conch § Ancient Greece" above). The trumpet is associated with heavenly beings and the sound inspires fear.

In Numbers, the Israelites make metal trumpets upon divine instruction. "The Lord spoke to Moses, saying: Make two silver trumpets; you shall use them for summoning the congregation, and for breaking camp."²⁷ The Levite priests who are

²⁶ Exodus 19:16-17, 19; 20:18 (NRSV).

²⁷ Numbers 10:1-2 (NRSV).

responsible of the Ark of the Covenant, containing the stone tablets and the Ten Commandments, are now responsible for the playing and sounding of the trumpet.

“The two trumpets in [Numbers] ch 10, perhaps of different pitches, are played individually or together and with notes of different lengths to signal assembly, breaking camp, going to war, and the beginning of festivals.”²⁸ But the trumpets are also very strongly associated with the divine and “draw God’s beneficent attention to the people’s activities.”²⁹

Probably the most famous biblical story associated with trumpets is their use at the battle of Jericho.³⁰ The Israelites march around city of Jericho once every day for six days with seven priests carrying trumpets in front of the ark. On the seventh day they march seven times around the city. On the seventh march round the city, the priests sound the trumpet, and Joshua orders the people to shout. The loud noise causes the city wall to collapse and enables the Israelites to completely destroy the city.

Some types of ancient “trumpets” served more as megaphones to “concentrate and/or distort the natural voice.”³¹ Gunnar Landtman reports that in one of the tribes of New Guinea the king or chieftain always held, “a trumpet shell before his mouth when speaking to his people, so his voice had a very hollow sound.”³² The term trumpet is used broadly in the bible and the type used at Jericho is not known. Some ethnologists

²⁸ Coogan, Hebrew Bible 200 (footnotes).

²⁹ Ibid.

³⁰ Joshua 5:13-6:27.

³¹ Douglas Smith, “A Short History of the Trumpet,” *Instrumentalist* (January 1972; reprinted in *Brass Anthology*, [Northfield, Illinois: The Instrumentalist Company, 1987]), 592.

³² Sach, 48.

speculate whether it was trumpets, such as these, that would have been used at Jericho or other occasions.³³

A final function of the trumpet by the Israelites is that of glorifying God. Psalm 150 reads, “Praise Him with the sound of the trumpet.”³⁴ This aspect is somewhat present in all the previously mentioned functions of the Israelite trumpet. However, in instances where worship is the primary functions of the trumpet, it has far greater musical implications.

II Chronicles records the use of trumpets at the dedication of King Solomon’s Temple: “And all the levitical singers...stood east of the altar with one hundred twenty priests who were trumpeters). It was the duty of the trumpeters and singers to make themselves heard in unison in praise and thanksgiving to the Lord.”³⁵

Romans

The Roman trumpets are “first and foremost military instruments.”³⁶ But are also played at religious services, public ceremonies, and Gladiator fights.³⁷ The instrument was usually made of bronze, measured four feet in length, and played with a detachable

³³ Smith, 592.

³⁴ Psalm 150:3 (KJV).

³⁵ II Chronicles 5:12-13 (NRSV).

³⁶ Tarr, 26.

³⁷ Ibid., 27.

bone mouthpiece.³⁸ In Western art, angelic trumpeters are usually depicted holding straight trumpets of this nature.

Middle Ages

The social position of trumpeters in the medieval times is same as actors and other musicians. They had no rights and “the church even denied them the sacraments.”³⁹ This is in stark contrast to the elevated position of trumpeters in the Bible.

Medieval trumpeters play only in the low register of the instrument.⁴⁰ In the musical setting, the trumpets usually serve as a drone, similar to the bagpipes.⁴¹

Court trumpeters

While trumpeters are at the bottom of society in the Middle Ages, rulers still liked to surround themselves with trumpets. As a result, trumpeters employed by a court are dressed up in expensive costumes and often given a horse.⁴² While the culture shows minimal respect for people, it is the cultural associations of the trumpet that sustain the art.

The duties of the court trumpeter consist of (1) playing at table, (2) announcing public appearances of the ruler, (3) playing for tournaments, and (4) playing for

³⁸ “Roman tuba,” *Wikipedia*, http://en.wikipedia.org/wiki/Roman_tuba (Accessed: 14 December 2005).

³⁹ Tarr, 43.

⁴⁰ In his treatise, *De arte musicae* (c. 1300), Johannes de Grocheo wrote that the trumpet had command of the three perfect consonances—that is, the octave, fifth, and fourth. Tarr, 42.

⁴¹ Tarr, 48-9.

⁴² *Ibid.*, 43-44

festivities such as coronations, weddings and baptisms.⁴³ Even in times of peace, the trumpeters risk their safety by playing for tournaments, where they “...did not necessarily remain at a safe distance from the field of activity.”⁴⁴

Renaissance and slide trumpet

Prior to the 1400s, the trumpet had not really been allowed in church, presumably because of its military association.⁴⁵ As a slide trumpet, however, it is willingly accepted in a series of compositions for church.⁴⁶ The slide trumpet, although not yet fully chromatic, allows for the instrument to play more than simple drones. The slide trumpet is a technological advancement that leads to both expanded musical usefulness and greater cultural acceptance.

Slide trumpet on city towers

Slide trumpets found their way to the city towers. These trumpeters signal the start and end of day, keep a lookout for fires and the enemy, and perform several compositions throughout the day.⁴⁷ The life of a tower trumpeter is not easy. *The Tower Players' and Trumpeters' Oath* from Basel in the early 1500s delineates the duties:

The trumpeters...shall swear to ascend the tower...daily...in the evening, from that moment ringing the watch bells on the cathedral tower, immediately thereafter playing the

⁴³ Ibid., 44.

⁴⁴ Ibid.

⁴⁵ Ibid., 58

⁴⁶ Ibid.

⁴⁷ Ibid., 61-2.

trumpet, and then ringing the small bell for a half of a quarter of an hour; they shall never lead anyone up on to the tower, but rather shall walk up and down until six o'clock in the morning in the winter and until five o'clock in the morning in the summer; furthermore both are to play four or five entire compositions of proper length, both in the evening...and in the morning at daybreak. And this shall be done from both sides of the tower....⁴⁸

If a trumpeter forgets to sound the beginning of day or night, they would “lose a week’s salary without the right of appeal.”⁴⁹

Musicians organize

Musicians form week “brotherhoods” in the late Middle Ages, but gain strength and lead to higher social status, c. 1400s. Tarr describes the advancement that these local or regional organizations led to:

...They were freed from the stigma of possessing no rights and were henceforth allowed to receive the sacraments. Their rights and duties were clearly delineated, and they were protected in their own area against musicians from other parts. The fact that the brotherhoods regulated the learning process led to an increase in respect for the profession as a whole.⁵⁰

Because they can now regulate learning, the social advancement of musicians leads to music advancement. However, there are still some severe issues, and gross injustices. For example, Jacob Seidemann, tower watchman at the court of Innsbruck, “wrote an official complaint [in 1497] that his salary had not been paid to him for 19

⁴⁸ Quoted in: Tarr, 61.

⁴⁹ Ibid.

⁵⁰ Tarr, 63.

years!”⁵¹ It was not till 1548 that trumpets were allowed to form official guilds (“unions”) under the Holy Roman Empire.

Tension and hierarchy

Monteverdi’s opera *Orfeo* (1607) is unusually explicit in its writing. Prior to this time “trumpet and drum parts were generally left up to the discretion of the performer.”⁵² In a fanfare played before each act the trumpet parts are designated: *clarion*, *quinto*, *alto*, *vulgaro*, and *basso*.⁵³ “Not long afterwards,” states Smith, “a professional hierarchy [is] established which separated the musicians who played high parts and those who played low parts.”⁵⁴ To some degree, this hierarchy remains in place today. The principle trumpeter of an orchestra or the lead trumpeter of a jazz band plays the highest notes, and receives the higher salary.

In Germany guilds develop that separate the low-note city musicians, from the high-note chamber musicians. If the low-note players are caught playing notes outside of their range, bad things happened to them as described below.

At the end of the 17th century in Hanover, the Elector’s trumpeters once broke into the house of the chief tower-musician with whom they were at odds, took the trumpet on which he was practicing and knocked out several of his front teeth with it. And what is more, these worthy kameraden contended that they had only asserted their just right, and escaped all punishment.⁵⁵

⁵¹ Ibid., 67.

⁵² Smith, 593.

⁵³ Ibid.

⁵⁴ Ibid.

⁵⁵ Quoted in Smith, 593. No source given.

The chamber musicians likewise are only allowed to play the *clarino* or upper register of the trumpet.

The only means of melodic playing on the (valve-less) Baroque trumpet is to use the upper register of the trumpet, since the partials of the harmonic series are closer. The specialized and strenuous art of high note playing became highly protected. By the 17th and 18th century, these elitist clarino players were well paid and enjoyed considerable status. Musicologist, Robert Dearling, writes that trumpeters even demanded elevated seating in the orchestra during this era, because they refused to sit on the same level as other musicians.⁵⁶

Baroque writing for trumpet

Douglas Smith credits two composers with expanding the use of the higher harmonics and leading to the development of the clarino register: Alessandro Scarlatti, and Henry Purcell. “Both [composers] often employed trumpets to double or imitate the violins. This forced the trumpets into a melodic style, technically possible, but heretofore unsuited to their character.”⁵⁷

In the years that followed many of the finest composers write significant works for trumpet. Bach, Vivaldi, Torelli, Corelli, Fasch, Telemann, Michael Haydn, and Leopold Mozart all wrote important (or numerous) concertos for trumpet. Bach’s Brandenburg Concerto No. 2 stands to day as one of the most magnificent, and demanding solos in the literature. Robert T. Jones calls the 18th century, “The greatest

⁵⁶ Robert Dearling, “Trumpet Concertos,” *Maurice André Plays Trumpet Concertos* (Musical Heritage Society, 1998) [Compact Disc liner notes, 1975], 3-4.

⁵⁷ Smith, 594.

era for the trumpet...for then composers treated this most brilliant and triumphant of instruments with the admiration it deserved.”⁵⁸

Not all the partials of the Baroque trumpet are equally in tune, most notably the 7th, 11th, and 13th. Bach carefully wrote to avoid these notes, or pass over them quickly between strong beats. Handel, on the other hand, took no such precautions. The English musicologist Carl Burney describes a performance of the *Messiah* in June 1784.

That favourite bass air, “The Trumpet Shall Sound,” was played very well by Mr. Serjant. In the trumpet part of this air some passages occur, however, which, owing to the natural imperfections of that instrument, always produce an unpleasant effect. Mr. Serjant’s tone is most pleasing and clear, but whenever he had to sustain the note G, displeasure was depicted on every face, which grieved me sore. In the Hallelujah Chorus, the fourth G is held for two bars! It is greatly to be desired that this inspiring and brilliant instrument may be rid of its defects by some mechanical device.⁵⁹

The trumpet works of Bach and Handel illustrate a conflict between respect for the limits of technology versus a desire to disregard the limits of technology for higher musical goals. It is not till the invention of valves in the 19th century, that Handel’s parts could be played in tune and with a consistent quality of tone. In reference to the last sentence of Burney’s statement above, Robert Smith speculates, “Although he never lived to witness it, possibly Burney’s voice was one of the influences toward the technical advances to follow.”⁶⁰

⁵⁸ Robert T. Jones, *Wynton Marsalis: Purcell, Handel, Torelli, Fasch, Molter* (CBS Records, 1984) [Compact Disc liner notes], 2.

⁵⁹ Quoted in Smith, 593.

⁶⁰ Smith, 593.

Classical era

If the classical ear was a new episode of Star Wars, it might be called, “Return of the Drones.” Professor at Julliard, Samuel Adler, narrates the “dark age” of the trumpet.

With the rise of the homophonic style in the mid-eighteenth century, intricate, showy clarino playing virtually disappeared. The diatonic melodies required by the new style, which were normally written as the top voice would sound extremely piercing and obtrusive on the trumpet. Composers instead relegated this instrument to an accompanimental role, holding long tonic or dominant pedal tones or playing in chordal passages during the tutti sections.⁶¹

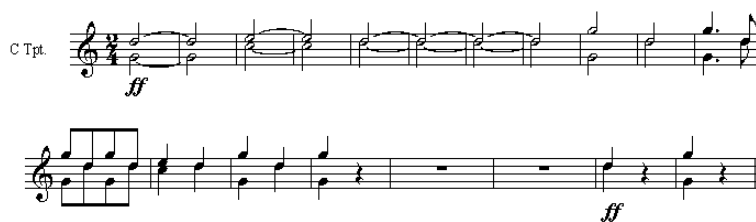


Figure 2 Haydn, Symphony No. 94, “Surprise” (1791), fourth movement, mm. 249-268.
A typical trumpet part from the classical era.

Unlike the Baroque era when the trumpet enjoyed featured works from the great composers of the time, the trumpet of the Classical era (and to an extent the Romantic era) became a “forgotten instrument.” Robert Smith elaborates:

The great tragedy for fine trumpeters then and now is the fact that in chamber works of Mozart, Haydn, Beethoven, and even Brahms, no trumpet parts exist. Symphonies by the same composers include trumpet figures designed to augment the percussion section, and perhaps add a prominent voice to climaxes and cadences. In short, no matter how progressive these men were in

⁶¹ Samuel Adler, *The Study of Orchestration*, 3 ed. (New York: W. W. Norton & Company, Inc., 2002), 326.

their musical concepts, they refused to allow trumpeters out of their “trumpet-and-kettledrum” role.⁶²

Smith argues that it was “dissatisfied trumpet enthusiasts [that] undoubtedly gave the incentive necessary for the development of the chromatic trumpet.”⁶³ In this case, musical *neglect*, leads to technological advancement.

Chromatic trumpet

The first piece written for keyed trumpet by a major composer is Joseph Haydn’s *Trumpet Concerto*. A friend of Haydn, Anton Weidinger, had been experimenting with a keyed trumpet for which he took out a patent in 1801. Robert Smith toys with the idea of Haydn composing the work “with the blind expectation that someone would come up with an instrument capable of playing it.”⁶⁴ This supposition is false, since Weidinger himself says that he began experimenting with keys in 1793⁶⁵ Haydn finishes the concerto in 1796 as his only piece for key trumpet. Weidinger would not perform the work until four years later.

The keyed trumpet is a major technological breakthrough, but it remained a novelty and few composers write for it. This maybe due to a culture that is not ready to accept a change to the trumpet, or perhaps a disliking for the quality of the instrument. The keyed trumpet lacks tonal consistency between the sound of the full length of the

⁶² Smith, 596.

⁶³ Ibid., 595.

⁶⁴ Ibid.

⁶⁵ This is found in an ad for the concert. Edward H. Tarr, “Haydn’s Trumpet Concerto (1796-1996) and its Origins,” *International Trumpet Guild Journal*, 21 (September 1996), 32.

tubing, and the sound resulting from open holes. Future improvements came with the advent of valves.

Invention of the valve

There are two men credited with inventing the valve. Heinrich Stölzel and Friedrich Blühmel “jointly took out a ten-year patent for valves in Berlin in 1818.”⁶⁶ The horn is first benefit from the new value system. Sach’s states “The cornet family was created about 1825, when French makers gave piston valves to the post horn.”⁶⁷ As such the cornet has had valve since its invention, “a fact that invited composers to write for it before the valve trumpet became readily accepted.”⁶⁸ The trumpet is fitted with valves not long after, but trumpet purists refused to accept it because and felt that it was a rejection of the trumpet’s heritage.⁶⁹ Thus, cultural pride held back technological innovation on the trumpet.

Cornet

The cornet found prominence in the wind band tradition, which, around the turn of the twentieth century, was the primary means for average people to hear music performed live.⁷⁰ A strong tradition of virtuoso cornet soloist develops as a result. The

⁶⁶ Smith, 595.

⁶⁷ Sachs, 428.

⁶⁸ Adler, 337.

⁶⁹ Smith, 596.

⁷⁰ Donald Hunsberger, *Wynton Marsalis: Carnaval* (CBS Records, 1987) [Compact disc, liner notes], 4.

most famous of them, Herbert L. Clarke, traveled with Sousa's band around the world, and to wide acclaim in the United States and Canada.⁷¹ His published solos and method books are still used today by trumpeters and cornetists alike.

Gender Issues

In my own experience, males have dominated the trumpet world. My high school band had eight trumpeters; only one was a woman. During my time in the Graceland University band, there have never been more than two women playing the trumpet. I began my honors presentation on the history of the trumpet by asking the audience what they knew or associated with the trumpet, and any names of trumpeters or composers. Not one of the responses offered a woman's name, or anything feminine in nature. In an age for equality of women, the trumpet world is strikingly far behind.

One of the most important organologist of the 20th century, Carl Sachs, attributed it all to sex: the shape of the instrument and the nature of its sound. In discussing the ritual functions of early instruments he states:

All instruments representing the penis are played by men only, and the chief occasion for playing them is at funerals; all instruments decorated with red color are reserved for men and must not be seen by women; vulva instruments are frequently connected with water and moon rites. ...Sound, also, is a factor.... Most of the instruments reserved for men have a harsh, aggressive, indeed ugly tone; most instruments preferred by women have a muffled timbre.⁷²

⁷¹ Smith, 596.

⁷² Curt Sachs, *The History of Musical Instruments* (New York: W. W. Norton & Company, Inc., 1940), 50, 52.

Such statements sound striking to the modern ear and reflect the Freudian era that Sach's came out of. But it attempts to explain why the trumpet is a phenomena almost universally dominated by men.

The didgeridoo, an early form of the trumpet made of hollowed wood, was an integral part of ceremonial life for Aboriginal groups of northern Australia. However, only men play the didgeridoo.⁷³ In the Israelite culture, the trumpet was played by priest for religious occasions or by soldiers for times of war. Both of these roles were exclusively for men. In the western world, the trumpet was played exclusively by men by until the last century. According to Sachs, "Among certain tribes of the Amazon a woman

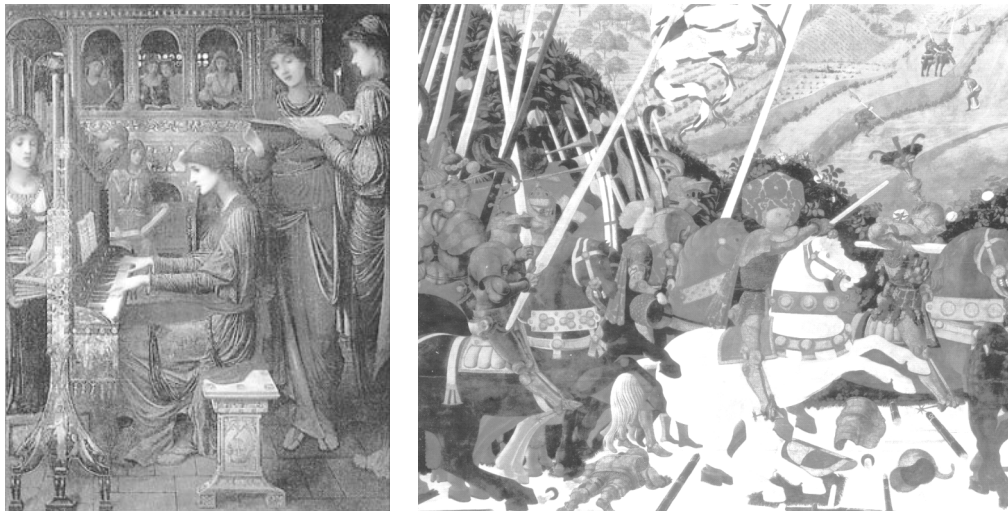


Figure: Shows contrast between gender associations for different instruments. *Left:* Women indoors singing or playing the keyboard. *Right:* Men fighting, killing, or playing the trumpet.

who has seen a trumpet is killed.”⁷⁴

⁷³ “Didgeridoo,” *Wikipedia*, <http://en.wikipedia.org/wiki/Didgeridoo> (Accessed: 13 December 2005), Cultural significance.

⁷⁴ Sachs, 48.

Ethnomusicologist, Margaret Sarkissian, argues that Sach's reasoning "confuses sex (a biological distinction) with gender (a culturally constructed distinction)" and offers an alternative explanation:

Though it is true that in many parts of the world, trumpets are loud instruments reserved for outdoor use, the separation between male-dominated public and female-dominated private domains is equally widespread. It could be argued that trumpets are played by men because they are played outside, rather than that trumpets are played outside because they are played by men.⁷⁵

During my presentation, I asked participants for explanations of why the trumpet world continues to be dominated by males. One of the first answers was, the association with kings, military, and war. In a 230-year-old country that has never had a king, I was surprised to hear that the trumpet's regal associations were still so firmly rooted in the culture. One of the participants and class supervisors, Tom Morain, attributed it to the traveling military bands of the 19th century, which were all male. Likewise, the Jazz Bands of the early 20th century were all male, except the pretty lady singer. Participants Sarah Thatcher and Andi Barber noted that in Drum and Bugle Corp and Marching Bands everyone is made to look like men, and most are. I noted that I owned no recordings of female trumpet players, nor could I name any famous female trumpet soloists.

When it comes to gender issues and trumpet, it is as if ancient cultural customs continue to haunt us today.

⁷⁵ Margaret Sarkissian, "Trumpet: Use and function," *Grove Music Online*, ed. L. Macy, <http://www.grovemusic.com> (Accessed 13 December 2005).

Conclusion

The development of the trumpet has been a process of pushing and tugging between music, culture and technology. The history is sometimes embarrassing, other times awe-inspiring, but nonetheless colorful and worth sharing.

Music is once again pushing the boundaries and limitations of the instrument. While the trumpet has gained acceptance as a virtuoso instrument, innovators will continue to experiment with technology and design new types of trumpets. No doubt composers will continue to write music that pushes the boundaries of even the modern trumpet. In terms of culture, trumpet learning is much more open than the days of the trumpet guilds, but not entirely open to women. It is my hope and expectation that the trumpet will see more prominent women in the years to come.

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Illustrations

Figure 1: <http://www.triplemind.com/images/gods/vishnu-drawing.jpeg> (Accessed: 4 December 2005).

Figure 2: Joseph Haydn, Symphony No. 94, “Surprise” (1791), fourth movement, mm. 249-268.

Figure: *Left*: Front cover to Andrew Wilson-Dickson, *The Story of Christian Music* (Minneapolis: Fortress Press, 1992), 234 pp. *Right*: Paolo Uccello, Niccolò Mauruzi in the Battle of S. Romano, with battle trumpets. London, National Gallery; printed in Tarr, *The Trumpet*, color pages.